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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,292	01/25/2005	Peter Schack	PC10486US	6410

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EXAMINER	
WILLIAMS, THOMAS J	
ART UNIT	**PAPER NUMBER**
3683	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,292	SCHACK ET AL.	
	Examiner	Art Unit	
	Thomas J. Williams	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13,15-23 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13 and 15-23* is/are rejected.

7)☒ Claim(s) *25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 December 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Acknowledgment is made in the receipt of the amendment filed December 26, 2006.

Drawings

2. The drawings were received on December 26, 2006. These drawings are accepted.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,405,836 to Rieth et al.

Re-claim 13, Rieth et al. disclose an actuating unit for an electromechanically actuated disc brake for use with automotive vehicles, which is disposed on a brake caliper wherein two friction linings 4/5 are disposed in a manner limitedly displaceable, cooperating with respectively one side face of a brake disc 6, with one of the said friction linings by means of an actuating element, through the actuating unit, being movable into engagement with the brake disc directly, and the other of said friction linings being movable into engagement with the brake disc through the action of a reaction force applied by the brake caliper, wherein the actuating unit comprises an electric motor 1 and a reduction gear 2 and/or 3 operatively disposed between the electric motor and the actuating element, the reduction gear 2 is formed of a threaded drive 17 accommodated by a guide piece 22 axially supported on the brake caliper or a gearbox housing 19 connected to the brake caliper, wherein provided between the guide piece 22 and the brake

caliper or the gearbox housing 19 connected to the brake caliper is a sensor device 23 for sensing the reaction force resulting from the actuating force applied by the actuating unit, the sensor device 23 is axially locked relative to the guide piece 22 (i.e. the sensor 23 can not move in an axial direction relative to the guide piece once the apparatus is assembled) and is locked axially relative to the brake caliper (or gearbox housing connected to the brake caliper) 19 (i.e. the sensor can not move in the axial direction relative to the brake caliper once the apparatus is assembled).

Re-claim 15, the sensor device takes up the space between the guide piece and the housing and as such radially guides the guide piece 22.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 16, 18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rieth et al. in view of WO 03/020563 A1 to Beuerle et al.

Re-claims 16, 18 and 21-23, Rieth et al. fail to teach the specifics of the sensor device, in particular the sensor device comprising an annular holder having circumferentially distributed three pressure measuring elements, the pressure measuring elements being square, an electric plug, an electric analyzer, and the strain gauge faces are bridge circuited.

Beuerle et al. teach a sensing device comprising an annular holder 84 with circumferentially distributed three pressure measuring elements 80, see figure 3. Beuerle et al. teach the sensing device having a square configuration with a strain gauge disposed in a plane extending in a direction normal to the admission of the reaction force, the holder is provided with an electric plug (see flexible printed conductor, page 3 paragraph 32) comprising an electric analyzer, the strain gauge faces are bridge circuited. It would have been obvious to one of ordinary skill in the art to have designed the sensing device of Rieth et al. with an annular support having three circumferentially disposed pressure measuring devices as taught by Beuerle et al., thus easing the installation of the sensing device within the housing.

US 2004/0163900 is the English language equivalent to WO 03/020563.

8. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rieth et al. in view of EP 0 432 122 A2 to Adolfsson et al.

Re-claims 16 and 17, Rieth et al. fail to teach the specifics of the sensor device, in particular the sensor device comprising an annular holder having circumferentially distributed three pressure measuring elements, wherein the holder is made from a plastic material.

Adolfsson et al. teach sensor device comprising an annular holder made from a plastic material. It would have been obvious to one of ordinary skill in the art to have designed the sensor device of Rieth et al. with a plastic annular holder as taught by Adolfsson et al., thus reducing weight and costs for the annular holder of the sensing device.

Re-claims 16, 18, 19 and 20, Rieth et al. fail to teach the specifics of the sensor device, in particular the sensor device comprising an annular holder having circumferentially distributed three pressure measuring elements of a square type configuration and provided with strain gauge faces, the holder comprising contacting means for contacting the strain gauge faces, wherein the contacting means and holder is injected molded from a plastic material.

Adolfsson et al. teach sensor device comprising an annular holder made from a molded plastic material, see abstract, the contacting means is formed as part of the annular holder, the sensors have a square type configuration, see figure 3, and provided with strain gauge faces disposed in a plane extending in a direction normal to the admission of the reaction force. It would have been obvious to one of ordinary skill in the art to have designed the sensor device of Rieth et al. as an injected molded plastic annular holder having contacting means as taught by Adolfsson et al., thus reducing weight and costs for the annular holder of the sensing device.

Allowable Subject Matter

9. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed December 26, 2006 have been fully considered but they are not persuasive. Since the sensor device is physically locked in position, i.e. placed between two stationary features such as the caliper housing (or gearbox of the caliper housing) and the guide piece, it stands to reason that the sensor device is in fact locked axially relative to each of the caliper housing and the guide piece. It is unclear to the examiner what point the applicant is attempting to make. The applicant seems to suggest that elements 19 and 22 of Rieth et al. move relative to each other, see page 8 lines 20-21 of the remarks filed December 26, 2006. This is not supported by Rieth et al. and in fact makes no sense at all. Thread nut 16 is rotated by the action of reduction gear 3, which results in the axial movement of spindle 17. At no time does it appear that gearbox housing 19 rotates relative to guide piece 22 (or bearing ring). As such the stationary relationship of sensor device 23 relative to the gearbox housing 19 and guide piece 22 is maintained during normal operation. Thus the examiner interprets the sensor device 23 as being axially locked relative to the guide piece 22 and axially locked relative to the brake caliper or the gearbox housing 19 of the brake caliper.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128. The examiner can normally be reached Wednesday-Friday from 6:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan, can be reached at 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

February 28, 2007

THOMAS J. WILLIAMS
PRIMARY EXAMINER

Thomas Williams
Art 3683
2-28-07